

Claims

What is claimed is:

1. A frame assembly for a skid steer loader machine having an undercarriage including at least one crossmember, said frame comprising:

a main frame assembly having a base portion and a front and rear section;

at least one recessed channel located on said base portion of said frame and positioned between said front section and said rear section of said frame, wherein said at least one recessed channel extends across the width of said base portion and is operably associated with a respective crossmember of said undercarriage for mounting thereto.

2. The frame assembly for a skid steer loader machine having an undercarriage including a pair of cross members of claim 1, said frame further comprising:

a upper frame assembly having a pair of space tower assemblies, a pair of side members⁵¹ having front and rear portions with each said side members being connected to a respective one of the pair of tower assemblies and extending longitudinally therefrom, and a crossmember assembly extending between the pair of tower assemblies for connection therewith;

a lower frame assembly⁵⁰ having a pair of spaced vertically oriented side rails and a front wall extending continuously between the side rails for connection therewith;

wherein the upper frame assembly is mounted to the lower frame assembly exclusively at a connection between the side members of the upper frame assembly and the respective side rails of the lower frame assembly.

3. The frame assembly for a skid steer loader machine having an undercarriage including a pair of crossmembers of claim 1, wherein said undercarriage is a tracked undercarriage including a right and left track assembly, wherein said track assemblies are connected by said at least one crossmember.

4. The frame assembly for a skid steer loader machine having an undercarriage including a pair of crossmembers of claim 1, wherein said at least one recessed channel defines a strengthened region operable to provide torsional stiffness to said skid steer loader.

5. The frame assembly for a skid steer loader machine having an undercarriage including a pair of crossmembers of claim 4, wherein lower frame assembly is formed of medium strength steel.

6. The frame assembly for a skid steer loader machine having an undercarriage including a pair of crossmembers of claim 2, wherein the lower frame assembly further includes said base portion and said at least one recessed channel.

7. The frame assembly for a skid steer loader machine having an undercarriage including a pair of crossmembers of claim 2, wherein the upper frame assembly has front and rear end portions and the side members of the upper frame assembly are connected by a crossmember assembly disposed between the front and rear end portions of the upper frame assembly.

8. The frame assembly for a skid steer loader machine having an undercarriage including a pair of crossmembers of claim 2, wherein the side members of the upper frame assembly extend along the side rails of the lower frame assembly a predetermined distance and terminate rearward of the front wall.

9. A skid steer loader machine having a main frame assembly and an undercarriage wherein said main frame assembly includes a lower frame assembly having a front and rear section and an upper frame assembly having an operator cab and a hydraulic lift arm, and wherein said undercarriage includes a right and left track assembly connected by at least one crossmember, said machine comprising:

at least one recessed channel located on a base portion of said lower frame assembly and positioned between said front section and said rear section of said lower frame assembly, wherein said recessed channel extends across the width of said base portion and is operably associated with a respective crossmember of said undercarriage for mounting thereto.

10. The skid steer loader machine of claim ~~8~~⁹, wherein the upper frame assembly further includes:

a pair of space tower assemblies, a pair of side members having front and rear portions with each said side members being connected to a respective one of the pair of tower assemblies and extending longitudinally therefrom, and a crossmember assembly extending between the pair of tower assemblies for connection therewith;

and the lower frame assembly further includes:

a pair of spaced vertically oriented side rails and a front wall extending continuously between the side rails for connection therewith;

wherein the upper frame assembly is mounted to the lower frame assembly exclusively at a connection between the side members of the upper frame assembly and the respective side rails of the lower frame assembly.

11. The skid steer loader machine of claim ~~8~~⁹, wherein the lower frame assembly is formed of medium strength steel.

12. A frame assembly for a loader machine having an undercarriage including at least one crossmember, said frame comprising:

a main frame assembly having a base portion and a front and rear section;

at least one recessed opening located on said base portion of said main frame assembly and positioned between said front section and said rear section of said frame, wherein said opening is a recess extending across the width of said base portion and operably engages with a respective crossmember of said undercarriage for mounting thereto, wherein a vertical load of said loader machine is evenly distributed over the entire crossmember when said opening operably engages said crossmember.

13. The frame assembly for a loader machine having an undercarriage including at least one crossmember of claim ~~11~~¹², wherein the opening is a recessed channel.

14. The frame assembly for a loader machine having an undercarriage including at least one crossmember of claim ~~11~~¹², wherein the loader machine's center of gravity is lowered in relation to the depth of the recess and the amount of the crossmember disposed within the recess.